

**STATEMENT OF BASIS**

PERMITTEE:	Dakota Nation Gaming Enterprise
FACILITY:	Dakota Magic Casino, Hankinson, ND Wastewater Treatment Facility and Lagoon
PERMIT NO:	ND-0030813
RESPONSIBLE OFFICIAL:	Michael Peters, CEO 16849 102 <sup>nd</sup> Street Hankinson, North Dakota 58041 (701) 634-3000
FACILITY CONTACT:	Bryan DuMarce Water/Wastewater Operations Manager (701) 634-3000 bdumarce@dakotamagic.com
PERMIT TYPE:	Indian Country Minor Wastewater Treatment Facility (Renewal)

**Background Information**

The current general permit was issued by the Environmental Protection Agency, Region 8 Wastewater Unit, on September 30, 2005, and expired on August 16, 2009. The Dakota Magic Casino submitted the renewal permit application to the EPA on July 15, 2008. The EPA determined the application to be complete on August 17, 2009, and provided an administrative extension of the permit at that time. All of the requirements and conditions of the extended permit remain fully effective until the renewal permit is issued and effective.

This permit covers the wastewater treatment facility and subsequent effluent storage lagoon at the Dakota Magic Casino, located approximately 3 miles east and 9 miles south of Hankinson, North Dakota. The casino is situated on trust land for the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, and is, therefore, considered to be in Indian Country. The casino complex is just east of I-29, and north of the North Dakota/South Dakota state line, and includes the casino, conference center (capacity 2000), 432 room hotel, two restaurants, convenience store, RV park, and the Dakota Winds Golf Course.

The 0.15 MGD wastewater treatment facility was recently upgraded (Fall 2008), and currently consists of a bar screen, lift station, splitter box, oxidation ditches, final clarifiers, UV disinfection, and an aerobic digester with reed beds for sludge disposal. The average daily flow rate for the system is 40,000 gpd, with a maximum daily flow rate of 60,000 gpd. Effluent from the plant is discharged to a primary storage lagoon, which has a 180-day detention time. The treated effluent is used during the summer months for land application on the 80-acre golf course. A control valve allows transfer of water from the treated effluent lagoon to a primary irrigation pond, then by gravity flow to a series of ponds throughout the golf course. Effluent is applied to the course via irrigation pumps and sprinklers, and the greens have

buried drain tiles that collect any excess applied effluent and/or precipitation, and conveys it back to the interconnected pond system and traps. Constructed berms, pond design, and natural topography restrict storm water and effluent runoff from the golf course.

A NPDES supplemental information form, and treated effluent land application plan was developed and provided to EPA Region 8 in May 2006. The plan includes daily monitoring of precipitation, irrigation meter readings, and visual inspection to prevent treated effluent from running off-site. EPA does not have any regulatory authority over the water pumped to the golf course, provided that there is no discharge to "Waters of the United States."

The permitted discharge for the Dakota Magic Casino is from the treated wastewater effluent storage lagoon (Outfall 001). There is no constructed discharge valve or piping from the storage lagoon to the discharge drainage ditch, so the outfall would consist of a temporary pump set-up to direct flow from the treated effluent storage lagoon to the ditch. The permit specifies that no discharge shall occur until permission has been granted by the permit issuing authority. Prior to the start of any discharge from the treatment system, the permittee is required to obtain a grab sample from the treated effluent holding pond between the hours of 11:00 a.m. and 4:00 p.m., and have the sample analyzed. Permission to discharge does not release the facility from liability should effluent violations occur. The quality of effluent discharged by the facility shall, at a minimum, meet the limitations as set forth in the permit.

### **Receiving waters**

In addition to atypical direct discharges from the treated effluent lagoon, heavy rain events could cause runoff of treated effluent from the irrigation ponds and golf course, which would flow to an unnamed drainage ditch to an unnamed tributary to the Bois de Sioux. A discharge from the facility would flow 1600 feet to a ditch along Interstate 29 (I-29), then 700 feet to the northern boundary of Sisseton-Wahpeton trust land. The flow would then travel another 700 feet in the I-29 east ditch to an intermittent drainage tributary to the Richland County Drain #3. The unnamed tributary receiving discharge flow from the ditches is classified as a Class III stream. The quality of waters in this classification are suitable for agricultural and industrial uses, and generally have low average flow, with prolonged periods of no flow. During periods of no flow, they have limited value for recreation and aquatic species. The quality of these waters must protect secondary contact recreation uses, fish and aquatic biota, and wildlife uses. Since the intermittent drainage is farmed by local land owners, it is the responsibility of the Dakota Magic Casino to coordinate with the Richland County Water Resource District for use of the intermittent drainage area during times of effluent discharge from the lagoon, or runoff from the golf course, which is not covered by a discharge permit.

The Sisseton-Wahpeton Oyate have not established water quality standards for the receiving water. The Bois de Sioux, located 18.5 miles from the casino location, is the closest receiving water with a designated classification under the Standards of Water Quality for the State of North Dakota, Rule 33-16-02. The Bois de Sioux is a Class I water that has been designated for the following beneficial uses: domestic water supply; propagation or life, or both, of resident fish species and other aquatic biota; immersion recreation; limited contact recreation waters; wildlife propagation and stock water waters; irrigation waters; and commerce and industry waters.

### **Monitoring Data**

The Dakota Magic Casino has not discharged from the treated effluent lagoon since land application of effluent began in 2006, and installation of the treatment plant upgrades in 2009. Previous monitoring data from the lagoon in 1999 indicated that permit limits were being met, even with increases in total suspended solids during winter months.

### **Effluent Limitations**

The following limits are for Outfall 001:

Effluent Characteristic	Effluent Limitation		
	30-Day Average	7-Day Average	Daily Maximum
BOD <sub>5</sub> , mg/L	25	45	N/A
Total Suspended Solids, mg/L	30	45	N/A
<i>E. coli</i> , no./100 mL	a/	a/	a/
The pH of the effluent shall not be less than 6.0 or greater than 9.0 in any single sample or analysis.			
The concentration of oil and grease in any single sample shall not exceed 10 mg/L nor shall there be any visible sheen in the receiving water or adjoining shoreline.			

a/ Per the North Dakota Chapter 33-16-02.1 Standards of Quality for Waters of the State, Table 1, *E. coli*, “not to exceed 126 organisms per 100 ml as a geometric mean of representative samples collected during any 30-day consecutive period, nor shall more than 10 percent of samples collected during any 30-day consecutive period individually exceed 409 organisms per 100 ml. For assessment purposes, the 30-day consecutive period shall follow the calendar month. This standard shall apply only during the recreation season May 1 to September 30.”

The limits for total suspended solids (TSS) and pH are based on the National Secondary Treatment Regulations in 40 CFR Part 133. Due to the proximity of the discharge to waters of the State of North Dakota (within 800 yards), the more stringent state standard for the 5-day biological oxygen demand (BOD) was used for the permit limits. The North Dakota standards for TSS and pH are equivalent to the effluent limitations specified under the National Secondary Treatment Regulations (40 CFR Part 133).

*E. coli* limits were placed in the permit due to public health concerns raised during a previous public comment period. Treated wastewater could come in contact with non-food crops in the intermittent drainage area farmed by local land owners, and may be a health consideration for the land application of the treated effluent on the golf course. Although past process data collected by the Dakota Magic Casino was collected during the use of chlorination for disinfection, use of the UV disinfection system should result in adequate disinfection.

The *E. coli* permit condition is replacing the fecal coliform limit because the North Dakota “Standards of Quality for Water of the State” are being updated, and *E. coli* will now be listed as the bacteriological indicator, with fecal coliform limits being removed. The limitation for *E. coli* shall be: “not to exceed

126 organisms per 100 ml as a geometric mean of representative samples collected during any 30-day consecutive period, nor shall more than 10 percent of samples collected during any 30-day period individually exceed 409 organisms per 100 ml.” For assessment purposes, the 30-day consecutive period shall follow the calendar month.

The oil and grease limitation is based on the State of North Dakota water quality standard for oil and grease, and protection of the national aesthetic quality criteria which states all waters will be free from substances attributable to wastewater or other discharges that float as debris, scum, oil, or other matter to form nuisances.

**Self-monitoring requirements** (Outfall 001)

The permit specifies that no discharge shall occur until permission has been granted by the permit issuing authority. Prior to the start of any discharge from the treatment system, the permittee is required to obtain a grab sample from the treated effluent holding pond, and have the sample analyzed for the following constituents:

BOD<sub>5</sub>, mg/L  
 Total Suspended Solids, mg/L  
*E. coli*, no./100 mL  
 Ammonia-N, mg/L  
 Nitrate-N, mg/L  
 pH, s.u.

The results of the analyses, along with a complete notification of discharge, will be provided to the permit issuing authority to receive permission to discharge. In addition, the notification of discharge will explain the reason for the discharge (ex: irrigation ponds are full), the beginning date and duration of the discharge, the description of the discharge outfall, and the approximate discharge volume.

The following self-monitoring requirements are included in this permit:

Effluent Characteristic	Frequency	Sample Type a/
Flow, MGD	<u>b/</u>	Instantaneous
BOD <sub>5</sub> , mg/L	<u>b/</u>	Grab
Total Suspended Solids, mg/L	<u>b/</u>	Grab
<i>E. coli</i> , no./100 mL	<u>b/</u>	Grab
Ammonia-N, mg/L	<u>b/</u>	Grab
Nitrate -N, mg/L	<u>b/</u>	Grab
pH, standard units	<u>b/</u>	Grab
Oil and Grease, Visual	<u>b/</u>	Observation <u>d/</u>
Oil and Grease, mg/L <u>d/</u>	<u>d/</u>	Grab

a/ See Definitions, Part 1.1., for definition of terms.

- b/ A minimum of three (3) samples or measurements shall be taken during any discharge of wastewater unless the discharge lasts only two days or less. It is required that a sample be taken at the beginning, middle, and end of the discharge if the discharge is less than one week in duration. If a single, continuous discharge is greater than one week in duration, three (3) samples shall be taken during the first week and one (1) during each following week. All of the samples collected during the 7 day or 30 day period are to be used in determining the averages. If only one (1) sample is collected during the period, it must be considered the same as the average for that period. The permittee always has the option of collecting additional samples if appropriate.
- c/ Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained. The average flow rate (in gallons per day) during the reporting period and the daily maximum flow (maximum volume discharged during a 24-hour period) shall be reported. The date and time of the start and termination of each discharge shall be reported.
- d/ If a visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample.

An ammonia-nitrogen monitoring requirement was placed in the permit to collect information on possible impacts to downstream aquatic life during discharge from the treated effluent lagoon. The nitrate-nitrogen monitoring requirement was included due to concerns raised in the previous public comment period regarding the impact of the discharge on livestock and drinking water supplies. Although adverse impacts are not anticipated due to the low levels of nitrates usually found in treated domestic wastewater, and the distance between the casino's drinking water wells and the discharge flows, a monitoring-only provision was placed in the permit to collect site-specific data to support this conclusion.

An additional requirement for the Permittee to annually report to the EPA Region 8 the amount of treated effluent diverted from the lagoon for irrigation of the golf course will be included in the permit. The amount of effluent utilized for irrigation may be directly measured by flow meter when the effluent is transferred to the primary irrigation pond, or by calculation from the estimated draw-down in the lagoon during effluent transfer. The cover letter transmitting the first quarter Discharge Monitoring Report (January – March) from the Permittee will include the total amount of flow transferred from the lagoon for golf course irrigation during the previous year.

### **Inspection Requirements**

The Permittee is required to inspect its wastewater treatment facility on at least a **weekly** basis per Section 1.3.3.1 of the permit. The inspection will include the treated effluent lagoon to determine if a discharge is occurring, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. The daily inspections of the treated effluent transfers to the golf course irrigation pond system, and observation of any wastewater runoff on the golf course will be done in accordance with the Operations Plan for Land Application of Wastewater at the Dakota Magic Casino Hotel for the Dakota Winds Golf Course. All provisions of Section 1.3.3 must be followed to document wastewater treatment facility inspections.

## **Sludge**

An upgrade project for the Dakota Magic Casino wastewater treatment facility was completed in October 2008. As part of the upgrade, reed beds were installed for disposal of sludge from the aerobic digester. The reed beds are planted with reeds, and sludge is applied on a regular basis. The reeds uptake the sludge nutrients, and some water from the sludge. The remaining water drains through a sand layer under the reeds, and is returned to the splitter box for treatment at the wastewater treatment facility. The reed beds are designed to provide 5-10 years of solids storage.

In 2004, the Permittee requested permission to discharge approximately 1500 gpd from the casino water treatment plant (WTP) backwash tank to the treated effluent lagoon. However, due to high arsenic levels in the WTP backwash that could contaminate the biosolids, and make biosolid disposal difficult, the request was refused. This prohibition of discharge of the WTP backwash or other wastes to the wastewater treatment facility or lagoon was added to the draft permit in Section 1.3.1.1.

Collected screenings, grit, solids, sludge, or other pollutants removed in the course of treatment shall be buried or disposed in a manner consistent with all applicable federal and tribal regulations (i.e., 40 CFR 257, 40 CFR 258, 40 CFR 503) and in a manner so as to prevent any pollutant from entering any waters of the United States or creating a health hazard. **In addition, the use and/or disposal of sewage sludge shall be done under the authorization of an NPDES permit issued for the use and/or disposal of sewage sludge by the appropriate NPDES permitting authority for sewage sludge.** Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the United States.

## **Reporting Requirements**

Effluent monitoring results obtained during the previous three months shall be summarized and reported on **one** Discharge Monitoring Report Form (EPA No. 3320 1), postmarked no later than the 28th day of the month following the completed reporting period. If no discharge occurs during the reporting period, "no discharge" shall be reported. Results shall be postmarked no later than the 28th day of the month following the beginning of the unauthorized release. If the discharge continues into the next month, monitoring results shall be reported monthly until the discharge is terminated.

The Permittee shall also report annually, via letter, the amount of treated effluent diverted from the lagoon for irrigation of the golf course.

Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements (see Part 8.7. of the permit), and submitted to the EPA Region 8 Planning and Targeting Program and the specified Tribe at the addresses below.

Addresses for Reporting Effluent Monitoring Results:

Original to: U.S. EPA, Region 8  
Policy, Information Management & Environmental Justice Program (8ENF-PJ)  
Attention: Director  
1595 Wynkoop Street  
Denver, Colorado 80202-1129

Copy to: Office Administrator  
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation  
P.O. Box 509  
Agency Village, SD 57262-0509

**Endangered Species Act (ESA) Requirements**

Section 7(a) of the Endangered Species Act requires federal agencies to insure that any actions authorized, funded, or carried out by an Agency are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species. Under the 2010 “Issuance of General Permits for Wastewater Lagoon Systems in Indian Country in Region 8 of the Environmental Protection Agency”, the EPA evaluated potential impacts to threatened or endangered species, and the designated critical habitat of such species by the discharges from lagoon systems currently covered under the existing general permit or an individual permit. With respect to these existing discharges, the EPA either determined that this permit renewal would have “no effect” or “may affect, but is not likely to adversely affect” listed species or designated critical habitat. The Dakota Magic Casino on the Sisseton-Wahpeton Oyate Reservation was included in Appendix A of the General Permit Issuance, and therefore, has been determined to have “no effect” or “no adverse affect” on listed species or designated critical habitat.

**National Historic Preservation Act (NHPA) Requirements**

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The EPA has evaluated its planned reissuance of the NPDES permit for the Dakota Magic Casino WWTF to assess this action’s potential effects on any listed or eligible historic properties or cultural resources. The EPA does not anticipate any impacts on listed/eligible historic properties or cultural resources because this permit is a renewal and will not be associated with any new ground disturbance or significant changes to the volume or point of discharge.

The EPA is not aware of any impacts or potential impacts to historic properties by the discharges from the lagoon systems currently covered under the existing general permits or individual permits under the above cited permit renewal action. This permit is a renewal, and will not be associated with any new ground disturbance or significant changes to the volume or point of discharge.

Prepared by: Gail Franklin, 8P-W-WW, EPA Region 8, August 23, 2011

Permit reviewed by Robert D. Shankland, 8P-W-WW, EPA Region 8.

## **Addendum**

During the public notice period, a comment was received from the North Dakota Department of Transportation concerning treated wastewater entering the Interstate-29 (I-29) right of way. Although unlikely, any direct discharges from the treated effluent lagoon or runoff from the irrigation ponds and golf course would need to travel approximately one-third of a mile to reach the ditch along I-29. As with the requirement to coordinate with local land owners for discharges reaching the intermittent drainage tributary to the Richland County Drain #3, it is the responsibility of the Dakota Magic Casino to notify the North Dakota Department of Transportation if discharge from the treated effluent lagoon, or runoff from the golf course reaches the ditch in the right-of-way along I-29.

The permit will be issued as proposed, with an effective date of January 1, 2012, and an expiration date of December 31, 2016.

Gail Franklin, 8P-W-WW, EPA Region 8, November 15, 2011